



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,381	01/26/2005	Koji Masaki	Q85876	7991
23373	7590	09/11/2006		
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER ASINOVSKY, OLGA	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/522,381

Applicant(s)

MASAKI ET AL.

Examiner

Olga Asinovsky

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.

Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 109 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
- 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
- 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 1/26/05 & 02/05/2005

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker U.S. Patent 5,221,714 in view of Takino et al U.S. Patent 4,946,887 (both references cited by applicants).

The claimed invention is a rubber composition comprising a blend of a styrene-butadiene copolymer rubber (A) and a styrene-isoprene copolymer rubber (B) having a high hydrogenation level in isoprene portion of said styrene-isoprene copolymer, and wherein the amount of bound styrene of the copolymer (B) is higher than that of the copolymer (A) by the specified definition in the present claims.

Parker discloses a blend of rubber lattices comprising: (A) from about 80 to 50 phr of a nonhydrogenated latex such as a styrene-butadiene copolymer latex and (B) from about 20 to about 50 phr of a hydrogenated rubber latex including styrene-isoprene-butadiene rubber, column 1, lines 60-68; column 2, lines 16-19; column 4, lines 44-45 and 48-52.

The hydrogenated rubber has a high saturation level of about 70% to about 99%, column 4, lines 50-51. The hydrogenation level of at least 60% of double bond in

Art Unit: 1711

isoprene portion in the styrene-isoprene-butadiene copolymer rubber in Parker invention would be expected, since the hydrogenation process is controlled for obtaining the desired saturation level.

Parker does not disclose the claimed bound styrene content for (A) copolymer and a bound styrene content for (B) component. Also, Parker does not disclose a weight average molecular weight for (A) and (B) components and using the resulting rubber composition for producing a tire tread.

Takino discloses a tire tread rubber composition comprising a blend of two rubbers having different Tg of diene rubber components, column 2, lines 21-68. The component (A) includes styrene-isoprene rubber (SIR) and component (B) includes styrene-butadiene rubber. The proportion of component (A) and component (B) can be in the range from about 5/95 to 60/40. The styrene content for SIR component is higher than the styrene content for SBR component, Table 1 at column 5.

It would have been obvious to one of ordinary skill in the art to formulate a rubber composition in Parker invention such that a bound styrene content in the hydrogenated styrene-isoprene rubber copolymer is higher than that in the styrene-butadiene rubber copolymer and use said rubber composition for a tire tread as disclosed by Takino invention because Takino discloses the available styrene-isoprene copolymer rubber having claimed bound styrene content, and the hydrogenation process is controlled for obtaining the desired saturation level in the rubber copolymer in Parker invention.

Although Takino does not disclose a hydrogenation of isoprene portion in the styrene-

Art Unit: 1711

isoprene copolymer rubber, the prima facie case of obviousness is that the hydrogenation process is well known for obtaining the desired characteristics for styrene-isoprene copolymer rubber.

Conclusion

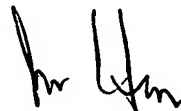
3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art has been considered.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 571-272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA



James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700